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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,228	07/29/2003	Hideki Takenaka	O3020.0350/P350	4760
24998	7590	02/21/2007		
DICKSTEIN SHAPIRO LLP 1825 EYE STREET NW Washington, DC 20006-5403			EXAMINER LIEW, ALEX KOK SOON	
			ART UNIT	PAPER NUMBER
			2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/628,228	Applicant(s) TAKENAKA, HIDEKI	
	Examiner Alex Liew	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The amendment filed on January 18, 2007 is entered and made of record.

***Response to Applicant's arguments***

The applicant states:

On page 9: [Applicant respectfully suggests that Yamamoto is not properly combinable with Turk.]

On page 10: [Because the office Action failed to provide any "actual evidence" showing "clear and particular" motivation to combine, the combination of the Turk and Yamamoto reference is improper.]

It seems the applicant main arguments are the combination of Turk and Yamamoto being improper. The examiner disagrees with the applicant because both Turk and Yamamoto teach using a camera to record video of a group of people and steps to find the human face within the image (for Turk see col. 3 lines 37 – 40, for Yamamoto see paragraph 29).

On page 11, the applicant states: [As described above, Turk teaches away from apply any abstraction process. Yamamoto teaches applying "image processing for privacy protection" based not on whether the detected face image is a criminal suspect but instead "depending on the authority of a user who views the video image."] The examiner will clarify its position on the matter. Turk teaches identifying individuals who are in front of a television (col. 3 lines 17 – 25), these individuals' faces are either identified as being a member of the family (see col. 8 lines 3 – 5), which is read as the

Art Unit: 2624

'criminals', or not identify, the person being a guest (see col. 7 line 67 to col. 8 lines 1 – 2), which is read as the 'non-criminals'. Yamamoto suggests on paragraph 4, those who are being monitor feels unpleasant, so covering their faces with 'abstraction' procedure will protect their privacy. Turk discloses the 'criminals' and 'non-criminals', Yamamoto suggests protecting the faces of those who feels unpleasant, all the examiner is combining is just applying 'abstraction' process to those who are 'non-criminals' and identifying those faces that matches with the system database, as shown by Turk.

In response to the applicant's amendment, the examiner will clarify the rejection while maintaining the same grounds of rejection.

#### **DETAILED ACTION**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4/1, 4/2, 4/3, 5 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turk (US pat no 5,164,992) in view of Yamamoto (US pub no 2004/0145657).

With regards to claim 1, Turk discloses a face identification device comprising

Art Unit: 2624

detecting means for detecting face images from human body image taken by a camera (see col. 3 lines 18 – 21 and 37 – 41 – the audience sitting shows the entire body of the audience then head of a person is located),

storage means in which a face image of a criminal suspect is previously stored (see col. 6 lines 64 – 67 to col. 7 line 1 – there are N number of faces, where  $k = 1, 2, \dots, N$ , of the N faces one of the face will minimizes the error – those N faces are stored in storage),

determination means for determining whether a face image detected by the detection means matches with the face image stored in the storage means by comparing both face images (see col. 3 lines 43 – 45 – after the head of the person is located module 10 of the fig 1 determines whether the face is one of a reference set of faces) and

not applying abstraction process to a detected face image when said determination means determines that both face images match with each other (there is no process perform on the face image after being identified).

Turk does not teach abstraction process. Turk does teach identifying individuals who are in front of a television (col. 3 lines 17 – 25), these individuals' faces are either identified as being a member of the family (see col. 8 lines 3 – 5), which is read as the 'criminals', or not identify, the person being a guest (see col. 7 line 67 to col. 8 lines 1 – 2), which is read as the 'non-criminals'. Yamamoto suggests on paragraph 4, those who are being monitor feels unpleasant, so covering their faces with 'abstraction' procedure will protect their privacy. Turk discloses the 'criminals' and 'non-criminals', Yamamoto

Art Unit: 2624

suggests protecting the faces of those who feels unpleasant, all the examiner is combining is just applying 'abstraction' process to those who are 'non-criminals' and identifying those faces that matches with the system database, as shown by Turk.

The combination of Turk and Yamamoto disclose abstraction means for applying an abstraction process to a predetermined face image out of the face images detected by said detection means in order to make the predetermined face image unrecognizable (the faces of the guest / 'non-criminals', shown in Turk citation above, are covered with an 'abstraction' process, disclosed by Yamamoto, fig 5 using DCT) and not applying the abstraction process to a detected face image when the determination means determines that the detected face image is a criminal (in Turk nothing is done after the face had been identified except storing the face in storage medium, col. 8 lines 3 – 5). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include abstraction means because protect the privacy of the individuals who feels unpleasant when constantly being observe while criminals or suspicious individuals are being searched through surveillance camera (see paragraph 4).

With regards to claim 2, Turk discloses all of the claim elements / features as discussed above in rejection for claim 1 and incorporated herein by reference, but fails to disclose abstraction process is a mosaic process for making a face image portion mosaic.

Yamamoto discloses a face identification device according to claim 1, wherein said

Art Unit: 2624

abstraction process is a mosaic process for making a face image portion mosaic (see paragraph 39). See the motivation for claim 1.

With regards to claim 4/1, Turk discloses all of the claim elements / features as discussed above in rejection for claim 1 and incorporated herein by reference and a face identification device according to claim 1, wherein when a face image detected by said detection means is determined to match with the face image stored in said storage means, the image of the criminal suspect which is not applied with the abstraction process on the face (nothing is done after the face had been identified except storing the face in storage medium, col. 8 lines 3 – 5), but does not disclose abstraction process. Turk discloses individuals being identified and not being identified, those who are not identified are the 'non-criminals', and those who are identified are 'criminals.' Suggestion from Yamamoto teaching covering those individuals who are non-suspicion to protect their identity, so abstraction process are performed on those faces using DCT, see citations and motivation from claim 1.

With regards to claim 4/2 and 4/3, see the rationale and rejection for claim 4/1.

With regards to claims 5 – 7, 10, 11, 13 and 15, see the rationale and rejection for claim 1. In addition, Turk also discloses a video capturing device, which reads on digital camera and scanner, in figure 1 – 4, with a full apparatus performing the claim invention of Turk.

With regards to claim 8, see the rationale and rejection for claim 2.

With regards to claim 9, Turk discloses all of the claim elements / features as discussed above in rejection for claim 7 and incorporated herein by reference, but fails to disclose storing the version of the input image. Yamamoto discloses a system of claim 7, in which the procedure further includes storing the version of the input image (see paragraph 38 – the video is playback implying the video is stored in a storage medium). See the motivation for claim 1. The playback video is part of the abstraction procedure.

With regards to claims 12 and 14, see the rationale and rejection for claim 1. In addition, Yamamoto discloses the reconstructed image of the face is 'playback' implying the face image was stored in a storage medium and made unrecognizable by using DCT coefficients and mosaic process (see paragraph 38).

3. Claims 3 / 1 and 3 / 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turk (US pat no 5,164,992) in view of Yamamoto (US pub no 2004/0145657) as applied to claim 1 further in view of Lu (US pat no 5,771,307).

With regards to claim 3 / 1, Turk discloses all of the claim elements / features as discussed above in rejection for claim 1 and incorporated herein by reference, but fails to disclose a detected face image is not applied with the abstraction process and is

applied with a marker. Lu discloses a face identification device according to 1, wherein said determination means determines that both face images match with each other, a detected face image is not applied with the abstraction process and is applied with a marker (see col. 22 lines 4 – 6). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to include a detected face image is not applied with the abstraction process and is applied with a marker because to prevent the same face to be mark again when making a second or third scan on the image to reduce processing power (see col. 22 lines 6 – 8).

### ***Conclusion***

**This action is made final.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shorten statutory period for reply to this final action is set to expire three months from the mailing date of this action. In the event a first reply is filed within two months of the mailing date of this final action and the advisory action is not mailed until after the end of the three-month shorten statutory period, then the shorten statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however will the statutory period for reply expire later than six months from the mailing date of the final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Liew whose telephone number is (571)272-8623. The examiner can normally be reached on 9:30AM - 7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on (571)272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**Alex Liew**  
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**2/7/07**



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